Aseptic loosening of trapezo-metacarpal prostheses.

Proposal for a revision strategy
1 Trapezium with Sufficient Bone Stock

Changing the size of the cup

- 8 months Follow-up
- Pain
- No bone integration of the cup
- Hyperfixation of the trapezium on Scintigraphy

• Removal of the cup size 9
• Drilling until spongy and bleeding bone
• Placement of a cup size 10

2 years follow-up
2/ LOOSENINGS WITH UNSUFFICIENT BONE STOCK but MODERATE BONE DEFECT of the trapezium
Spongious Bone Grafting + Changing the size of the cup

- Respect of the walls of the trapezium
- Removal of the cup size 9
- Minimal drilling
- **Spongious Bone graft** from the iliac crest or radius
- Implantation of a Maïa cup size 10
- Splint immobilization of the thumb during 8 weeks
- Good bone ingrowth

1 year Follow-up
3/ LOOSENING WITH MAJOR BONE DEFECT
& Respect of the trapezium walls
Patient < 75 Y

Corticospongious Bone Grafting + Drilling on the cortical face

- Loosening of a cimented TMC prosthesis (Guepar*) with 12 years follow-up

- T-scan: **Respect of the trapezium walls**

- Gentle removal of TMC prosthesis
3/ LOOSENING WITH MAJOR BONE DEFECT
& Respect of the trapezium walls
Patient < 75 Y

Corticocancellous Bone Grafting + Drilling on the cortical face

- Minor Drilling of the trapezium
- Custom-made Cortico-
cancellous iliac graft
- Drilling on the cortical
surface of the graft
- Impaction of a Maia cup
  Size 9
- Good bone integration of
the graft with 1 year
follow-up
4/ LOOSENING WITH MAJOR BONE DEFECT & Respect of the trapezium walls
Patient > 75 Y or Osteopenia

Cimented « Revisiting Cup »

- Minor Drilling of the trapezium
- Cimentation of the trapezium
- Impaction of a Maia « revisiting cup » Size 9
- 3 years follow-up: good function and no loosening
5/ LOOSENING WITH TRAPEZIUM DESTRUCTION

Trapeziectomy

- Loosening at of a cimented TMC prosthesis (Delacaffiniere*) with 20 years follow-up

- X-Ray or T-scan: Destruction of the trapezium wall

- Trapeziectomy
Classification of TMC cup loosening

Teissier, Barbary
Classification of TMC cup loosening

Stage 1: No Bone defect

Changing the size of the cup

Stage 2: Moderate Bone defect

Spongyous Bone Grafting

Stage 3: Significant Bone Defect
Respect of the Trapezium wall

A/ Iliac Crest Bone Grafting
B/ Cimented Revision cup

Stage 4: Trapezium wall collapse

Trapezectomy
Aseptic loosening of trapezo-metacarpal prostheses.

Proposal for a revision strategy